

Date: 8/4/17 ND
Begin: 9:50 AM ND
End: 10:55 AM ND

Statement of Academic Honesty

The following form is standard procedure for an exam that may be offered multiple times. Read the material below, then complete the form and return it with your completed exam. Your exam will not be graded unless a completed copy of this form is on file.

Course: IEM 3503/3513 Summer 2017

Test: Weekly Test # 8

There are others who may be taking this exam or a similar exam at a later date. You are in no way to have any form of direct or indirect communications regarding this exam with anyone. If someone asks something as simple as "How was it?" your best response is "I cannot talk about the exam." Any violation of the letter or spirit of the above will be treated as an act of academic dishonesty.

By completing the information below, I acknowledge that I have read and understood the Statement of Academic Honesty above.

Name (signature)

(b)(6)

Name (print):

(b)(6)

Student ID:

(b)(6)

Today's Date:

8/4/17

NAME: _____

(b)(6)

DR. A. COLLINS

TEST #8 (ON-LINE SECTION ONLY)

TIME LIMIT: 75 MINUTES

TEST TIME WINDOW: THURSDAY, AUGUST 3, 2017 (8:00AM) TO MONDAY
AUGUST 7, 2017 (5:00PM)(OPEN BOOK, ONE PAGE OF NOTES – 8 ½ X 11)Attach Notes Page to back of Test when submitted for gradeABSOLUTELY NO CELL PHONES OR BACKPACKS IN TESTING AREA!!!NON-GRAPHING CALCULATORS ARE ALLOWED

Multiple Choice Questions: For each Multiple Choice question below select the most nearest answer from choices A – D. Properly write your selected answer in the blank beside the corresponding question. Each M/C question is worth 10 points each.

A new start-up Ham Radio company in Oklahoma City makes commercial and amateur radio equipment, including receivers, transceivers, antenna tuners, linear amplifiers, and so on. Their taxable income last year was \$40,000 due to being in a start-up mode. They have developed a new digital transceiver that supports the C4FM Fusion System technology and is commercially available this year. This new product line is expected to add another \$180,000 to taxable income for this year. Based on the information provided determine the following:
Answer questions 1 – 4 below.

(10) A 1. What is the effective tax rate on all of last year's taxable income?

A. 15%

B. 25%

C. 34%

D. 39%

$$40,000(0.15) = 6,000$$

$$\frac{6,000}{40,000} = 15\%$$

(10) D 2. What is the effective tax rate on all of this year's taxable income?

A. 14.5%

B. 21.8%

C. 25.4%

D. 31.5%

- (10) C 3. What is the incremental tax rate for this year's taxable income?
- A. 28.8%
 B. 31.5%
C. 35.2%
 D. 38.7%
- $$\frac{61300 - 6000}{180000}$$

- (10) B 4. What is the marginal tax rate for this year's taxable income?
- A. 40%
B. 39%
 C. 38%
 D. 35%

itr = 40%

A subsidiary of General Electric (Voltare Energy) places in service electric generating and transmission equipment at a cost of \$2,000,000. The equipment is expected to last for 30 years with a wreck-out salvage value of \$250,000. The equipment will increase net income by \$500,000 in the first year, increasing by 2.4% each year thereafter. The subsidiary's tax rate is 40% and the after-tax MARR is 9%. There is some concern that the need for this equipment will last only 10 years and need to be sold off for \$550,000 at that time. Below is a table that you can use to fill in the calculations for BTCF, DWO, TI, T, ATCF, and MACRS (20-Year property class). The table is only for the first 10 years to see if the venture would be economically feasible. Answer the following questions (Questions 5 through 10) below:

EOY	BTCF, (\$)	DWO, (\$)	TI, (\$)	T, (\$)	ATCF, (\$)	MACRS(20)
0	-2000000				2000000	12.7%
1	500000	75000	425000	170000	330000	3.75
2	512000	Q#5	367620	147049	364952	7.22
3	524288	133540	Q#6	156299	367989	6.68
4	536871	123540	413330.9	165332	371539	6.18
5	549756	114260	435495	Q#7	375557	5.71
6	562950	405700	457249.1	182900	380050	5.29
7	576461	97760	478700	191480	Q#8	4.81
8	590296	90440	499855	Q#9	390353	4.52
9	604463	89240	515222.9	206089	398374	4.46
10	1168970	89240	Q#10	431892	737076	4.46
					MARR=	9%
					PW _{AT} =	\$687,562.69
					FW _{AT} =	\$1,627,710.94
					IRR _{AT} =	15.33%

- (10) A 5. What will be the depreciation writeoff for year 2 (DWO₂)?
- A. \$144,380
 B. \$185,120
 C. \$244,770
 D. \$282,690
- $2000000 (0.0375)$

- (10) B 6. What will be the Taxable Income for year 3 (TI₃)?
- A. \$405,400
 B. \$390,750
 C. \$335,250
 D. \$324,000
- $\frac{156299}{0.4}$

- (10) C 7. What is the Tax for year 5 (T₅)?
- A. \$151,350
 B. \$165,300
 C. \$174,200
 D. \$185,150
- $549756 - 375557$

- (10) C 8. What is the After Tax Cash Flow for year 7 (ATCF₇)?
- A. \$427,750
 B. \$404,500
 C. \$385,000
 D. \$349,000
- $576461 (1 - 0.4) + 0.4 (97760)$

- (10) D 9. What is the Tax for year 8 (T₈)?
- A. \$174,900
 B. \$181,800
 C. \$185,250
 D. \$199,950
- $590296 - 390353$

- (10) C 10. What is the Taxable Income for year 10 (TI₁₀)? \approx BTCF₁₀
- A. \$ 142,850
 B. \$ 550,000
 C. \$1,168,950
 D. \$1,472,300

(SCRATCH PAGE, LEFT BLANK INTENTIONALLY)

no notes